## **AUTHOR INDEX**

Abella, E., 377 Achutti, A.C., 143 Adams, J., 613 Algranti, E., 143 Anaissie, E., 577 Anderson, W.F., 106 Anderson, K.C., 535, 597, 607 Ang, P., 419 Astrow, A.B., 30

Babu, K.G., 169
Barlogie, B., 577
Baynes, R.D., 377
Bellamy, W.T., 551
Berenson, J.R., 626
Berg, C.D., 106
Bergsland, E.K., 521
Bladè, J., 588
Bonadonna, G., 13
Branett, C.C. J., 487
Bunnell, C.A., 344
Burstein, H.J., 344
Buzdar, A.U., 291

Campbell, M., 377 Capri, G., 13 Champagne, P., 620 Chauhan, D., 607 Chay, C., 3 Cohen, I., 121 Costa, A., 140 Curley, S.A., 487

D'Amato, R.J., 597 Dammacco, F., 543 Dansey, R.D., 377 Davidson, N.E., 322 de Camargo, E.A., 158 Dees, E.C., 322 Desikan, R.K., 593 Diel, I.J., 236 Digman, J., 400 Dupont, E., 620 Duray, P.H., 570

El Bolkainy, M.N., 174 El Malwa, N.G., 174 Eluf-Neto, J., 188 Esteve, J., 588

Falardeau, P., 620 Figg, W.D., 570 Fisher, B., 389, 400 Fisher, E.R., 400 Folkman, J., 536 Fong, Y., 460, 474 Foon, K.A., 68 Frigeri, A., 543 Ganz, P.A., 274 Garber, J., 419 Ghavamzadeh, A., 153 Gianni, L., 13 Giuliano, A.E., 41

Habal, N., 41 Hamm, C., 377 Hariton, C., 620 Harris. D.T., 1 Hawk, E., 106 Hayes, D.F., 53 Hideshima, T., 607 Hortobagyi, G.N., 284

Iravani, M., 153 Isaacs, C., 53

Jagannath, S., 593 Jahani, M., 153 Jochelson, M., 221 Johnson, P.J., 503, 514 Jordan, V.C., 260

Kashef, E., 497 Khaled, H.M., 174 Klein, J.L., 377 Krag, D., 229 Kruger, E.A., 570 Kyle, R.A., 560, 583

Land, S., 400 Lentzsch, S., 597 Leung, T.W.T., 503, 514 Little, S.A., 460, 474 Los, M., 93

Ma, H.M., 626
Macdonald, J.S., 30
Mamounas, E., 400
Mamounas, E.P., 389
Mamounas, T., 219
Menezes, A.M.B., 143
Moliterni, A., 13
Monro, A., 441
Montoto, S., 588
Montserrat, E., 588
Morton, D.L., 41
Moussavi, A., 153
Munshi, N.C., 565
Muss, H.B., 313

Nascimento, C.M.R., 188

O'Regan, R.M., 260 Ogunbiyi, J.O., 179 Paik, S., 305, 332 Park, C., 332 Perales, M., 588 Peters, W.P., 377 Plesniçar, A., 210 Plesniçar, S., 139, 210 Pluda, J.M., 570 Podar, K., 607 Poyet, P., 620 Price, D.K., 570

Rajkumar, S.V., 560, 583 Rastegarpanah, M., 153 Recht, A., 245 Ribatti, D., 543 Richardson, P., 607 Roberts, J.P., 497 Roccaro, A.M., 543 Rogers, M.S., 597 Rosiñol, L., 588

Safa, M.M., 68 Schlossman, R.L., 607 Sherman, M., 450 Smith, D.C., 3 Stearns, V., 53 Stirling, D., 602 Swain, S., 219 Swain, S.M., 359

Tagliaferri, M., 121 Tan, A.R., 359 Tan-Chiu, E., 253 Theriault, R.L., 284 Thomas, J.O., 198 Tomatis, L., 207 Tricot, G., 577 Tripathy, D., 121 Tuset, M., 588

Vacca, A., 543 Valagussa, P., 13 Venook, A.P., 439 Vescio, R., 626 Voest, E.E., 93

Wünsch-Filho, V., 158 Warren, R.S., 439 Wickerman, D.L., 253 Wilson, C., 565 Winer, E.P., 344 Wolmark, N., 400 Wright, T.L., 441

Zambetti, M., 13 Zwiebel, J.A., 336

## **AUTHOR INDEX**

Abella, E., 377 Achutti, A.C., 143 Adams, J., 613 Algranti, E., 143 Anaissie, E., 577 Anderson, W.F., 106 Anderson, K.C., 535, 597, 607 Ang, P., 419 Astrow, A.B., 30

Babu, K.G., 169
Barlogie, B., 577
Baynes, R.D., 377
Bellamy, W.T., 551
Berenson, J.R., 626
Berg, C.D., 106
Bergsland, E.K., 521
Bladè, J., 588
Bonadonna, G., 13
Branett, C.C. J., 487
Bunnell, C.A., 344
Burstein, H.J., 344
Buzdar, A.U., 291

Campbell, M., 377 Capri, G., 13 Champagne, P., 620 Chauhan, D., 607 Chay, C., 3 Cohen, I., 121 Costa, A., 140 Curley, S.A., 487

D'Amato, R.J., 597 Dammacco, F., 543 Dansey, R.D., 377 Davidson, N.E., 322 de Camargo, E.A., 158 Dees, E.C., 322 Desikan, R.K., 593 Diel, I.J., 236 Digman, J., 400 Dupont, E., 620 Duray, P.H., 570

El Bolkainy, M.N., 174 El Malwa, N.G., 174 Eluf-Neto, J., 188 Esteve, J., 588

Falardeau, P., 620 Figg, W.D., 570 Fisher, B., 389, 400 Fisher, E.R., 400 Folkman, J., 536 Fong, Y., 460, 474 Foon, K.A., 68 Frigeri, A., 543 Ganz, P.A., 274 Garber, J., 419 Ghavamzadeh, A., 153 Gianni, L., 13 Giuliano, A.E., 41

Habal, N., 41 Hamm, C., 377 Hariton, C., 620 Harris. D.T., 1 Hawk, E., 106 Hayes, D.F., 53 Hideshima, T., 607 Hortobagyi, G.N., 284

Iravani, M., 153 Isaacs, C., 53

Jagannath, S., 593 Jahani, M., 153 Jochelson, M., 221 Johnson, P.J., 503, 514 Jordan, V.C., 260

Kashef, E., 497 Khaled, H.M., 174 Klein, J.L., 377 Krag, D., 229 Kruger, E.A., 570 Kyle, R.A., 560, 583

Land, S., 400 Lentzsch, S., 597 Leung, T.W.T., 503, 514 Little, S.A., 460, 474 Los, M., 93

Ma, H.M., 626
Macdonald, J.S., 30
Mamounas, E., 400
Mamounas, E.P., 389
Mamounas, T., 219
Menezes, A.M.B., 143
Moliterni, A., 13
Monro, A., 441
Montoto, S., 588
Montserrat, E., 588
Morton, D.L., 41
Moussavi, A., 153
Munshi, N.C., 565
Muss, H.B., 313

Nascimento, C.M.R., 188

O'Regan, R.M., 260 Ogunbiyi, J.O., 179 Paik, S., 305, 332 Park, C., 332 Perales, M., 588 Peters, W.P., 377 Plesniçar, A., 210 Plesniçar, S., 139, 210 Pluda, J.M., 570 Podar, K., 607 Poyet, P., 620 Price, D.K., 570

Rajkumar, S.V., 560, 583 Rastegarpanah, M., 153 Recht, A., 245 Ribatti, D., 543 Richardson, P., 607 Roberts, J.P., 497 Roccaro, A.M., 543 Rogers, M.S., 597 Rosiñol, L., 588

Safa, M.M., 68 Schlossman, R.L., 607 Sherman, M., 450 Smith, D.C., 3 Stearns, V., 53 Stirling, D., 602 Swain, S., 219 Swain, S.M., 359

Tagliaferri, M., 121 Tan, A.R., 359 Tan-Chiu, E., 253 Theriault, R.L., 284 Thomas, J.O., 198 Tomatis, L., 207 Tricot, G., 577 Tripathy, D., 121 Tuset, M., 588

Vacca, A., 543 Valagussa, P., 13 Venook, A.P., 439 Vescio, R., 626 Voest, E.E., 93

Wünsch-Filho, V., 158 Warren, R.S., 439 Wickerman, D.L., 253 Wilson, C., 565 Winer, E.P., 344 Wolmark, N., 400 Wright, T.L., 441

Zambetti, M., 13 Zwiebel, J.A., 336

## SUBJECT INDEX

Ablation
in hepatocellular carcinoma, 499-500
radiofrequency, see Radiofrequency ablation
Acrolein, 339
Acupuncture, 125, 126
Adenoviral death protein, 337-338
Adenovirus, 340
safety of, as cancer therapy, 341
Adjuvant chemotherapy
in all breast cancer, 369-370
clinical studies of, 7-8

guidelines for, 372 high-dose, 19 neoadjuvant v, 394 overview of, 359-360 potential toxicities of, 370 side effects of, 370-372 Adjuvant endocrine therapy

benefits of, 319-320 patient selection for, 313-314 Adjuvant Tamoxifen-Longer Against Shor

Adjuvant Tamoxifen-Longer Against Shorter Trial, 261 Adjuvant Tamoxifen-Treatment Offer More Trial, 261 Adjuvant therapy

in breast cancer, 13-20 in hepatocellular carcinoma, 478 in prostate cancer, 3-4

recently closed trials of, in colorectal cancer, 35 standard of care, in colorectal cancer, 35

Adrenalectomy, 293 Aflatoxin, 444, 446 as hepatocellular carcinoma risk, 181

as hepatocellular carcinoma risk, 181 Africa bladder cancer in, 174

hepatocellular carcinoma incidence in, 180 hepatocellular carcinoma morphology in, 183 sub-Saharan, see Sub-Saharan Africa

AG3340, 96, 571 Age, ipsilateral breast tumor recurrence and, 414 Air pollution, lung cancer and, 148

Alcohol as cancer risk factor, 164 hepatitis virus and, 444 hepatocellular carcinoma and, 443

Alcoholic cirrhosis, hepatocellular carcinoma and, 443

Alendronate, 285, 286 Allogeneic whole-cell vaccine, 72

Alopecia, associated with adjuvant chemotherapy, 370-372

Alpha tocopherol, 113, 123

Alpha-1-antitrypsin, deficiency of, 444-445

Alpha-fetoprotein

following PIAF regimen, 517

in hepatocellular carcinoma surveillance, 453 Alternative medicine, definition of, 121-122

Aminoglutethimide, 268, 297-298 Aminothalidomide, 3-, 599

Anal cancer, in sub-Saharan Africa, 203 Anastrozole, 268, 298-299, 318-319 Androgen, in postmenopause, 293

Androstenedione, 268 Angelica sinensis, 128, 129

Angiogenesis

definition of, 560 ipsilateral breast tumor recurrence and, 414

marker of, 60-61 measurement of, 597 in multiple myeloma, 561-562 process of, 94

prognostic factors and, 94-95

prognostic value of, in myeloma, 562

of tumors, 93-94

Angiogenesis inhibitor, thalidomide as, 537-538 Angiogenesis-dependent disease, leukemias as, 536, 537

Angiogenic growth factor, in human hematopoietic tumor cell lines, 555
Angiography, in hepatocellular carcinoma, 467

Angiostatin, 95, 571 Anthracycline

liposomal, 348-349 non-anthracycline regimens v, in breast cancer, 362-364

Anti-epithelial membrane antigen, 238

Anti-idiotype antibody, 82-84 Anti-idiotype vaccine, 72

Anti-vascular endothelial growth factor antibody, 96 Antiangiogenesis agents, in hepatocellular carcinoma, 508-

509

Antiangiogenic agent(s)

in cancer adjuvant therapy, 100-101

chemotherapy plus, 100 clinical use of, 97-100 drug resistance and, 98-99

evaluation of, 99

route of administration for, 99 screening of, endothelial cell assay for, 570-572

side effects of, 98

Antiangiogenic therapy, 95-97 in cancer perioperative therapy, 101-102

Antibody(ies)

anti-idiotype, 82-84 to cytoskeleton keratins, 238

to membrane-bound surface antigens, 238

Antibody-dependent cellular cytotoxicity, 69

Antigen-presenting cell, 73

Antihormonal therapy, in hepatocellular carcinoma, 517-518

Antioxidant, as chemopreventive agent, 110

Antisense trial, in cancer, 337 Antivascular therapy, 95-97

Aorta, thoracic rat, 572

Aortic ring angiogenesis assay, Matrigel rat, 571-573

Apoptotic index, ipsilateral breast tumor recurrence and, 414

Aquaporin 1, 544-546

Argentina

occupations in, and lung cancer, 148

Pap smear testing in, 194

Arsenic, lung cancer and, 147

Arteriogram, hepatic, in hypervascular hepatocellular carcinoma, 467

Arteriography, direct CT, 465 Arterioportography, CT, 465

Asatine-211, 70

636

Asbestos, Brazilian worker exposure to, 149

Ascorbic acid, 113

Asia, hepatocellular carcinoma incidence in, 180

Astragalus membranaceus Bunge, 128, 129

Ataxia-telangiectasia, breast cancer risk and, 423

Autologous tumor vaccine, 72

Axillary lymph node dissection in breast cancer, 45

for breast cancer staging, 236-237

routine, 46

Axillary lymph node status

in breast cancer, 21-22

locoregional failure and, 247

as prognostic factor, 55-56

Axillary sentinel lymphadenectomy, development of, 47

B72, radiolabeled chimeric, 72

Bacterial carboxypeptidase, 339

Basic fibroblast growth factor, 61, 508

angiogenesis and, 536

Batimastat, 98

Bcl2 family, 63-64

Bcl-2 expression, ipsilateral breast tumor recurrence and, 414

BEC2, 84

Beedis, 170

Behavior modification, in cancer prevention, 253

Beta-carotene, 109-110, 123

Betel leaf, 170

Betel nut, 170

Bevacizumab, 571

Bilharzial cystitis, in Egypt, 174

Biomarkers, tumor response and, 394

Bismuth-212, 70

Bisphosphonate(s)

adjuvant, in advanced breast cancer, 369

analogs of, 285

clinical uses of, 285

definition of, 284

impact of, on bone, 284

mechanism of action of, 284

pharmacokinetics of, 284-285

structure of, 285

Bladder cancer

in Africa, 174

biologic aspects of, 175-176

chemotherapy in, 177

clinical picture in, 176

future directions in, 178 pathology of, 174-175

treatment of, 176-178

types of, 176

Bleomycin, doxorubicin regimen, in hepatocellular carcinoma, 515

Blue dye, for intraoperative mapping, 48

BMS-275291, 571, 96

Bone, metastasis to, 286

Bone density, tamoxifen and, 263-264

Bone marrow, microvessel density in, poor prognosis and, 565-566

Bone marrow angiogenesis, 543-544

measurement of, 560-561

multiple myeloma therapy and, 562-563

as prognostic marker, 549-550

Bone marrow micrometastasis, 59-60

Bone marrow staging

in breast cancer, 238

of cancer, v lymph node status, 241

Bone metastasis, prevention of, 288

Boyden chamber technique, 546

Brazil

cigarette consumption in, 146

lung cancer in, 143-144

mouth cancer in, 160

occupation in, and lung cancer, 148

occupational categories in, 149

Pap smear testing in, 194

pharyngeal cancer in, 160

smoking in, 145-147

BRCA1 gene, 421-422

BRCA1 mutation

penetrance of, 424

prevalence of, 422-424 testing for, 425

BRCA2 gene, 421-422

BRCA2 mutation

penetrance of, 424

prevalence of, 422-424

testing for, 425

Breast cancer

adjuvant treatment in, 13-20

advanced, chemotherapy in, 344-345

in all patients, 369-370

anthracycline v non-anthracycline-based regimens in, 362-

364

chemoprevention of, 254-255, 428-429

chemotherapy dose response in, 381-382 chemotherapy outcomes in, 378-379

chemotherapy outcomes in, 378-379

diagnosis of, options with, 429

diet in, 123-124

early-stage, adjuvant endocrine therapy benefits in, 313-

314, 319-320

endocrine therapy of, 292-293

estrogen levels and, 277 family history of, 420-421

gemcitabine in, 352

genetic testing for, 425-427

genetics in, 421-425

hematopoietic stem cell transplantation in, 379-381

high-dose chemotherapy in, 367-369, 379-381, 382-384

high-risk primary, 381-384

historical overview of, 13

incidence of, 419

international overview of, 13-15

invasive, 255 local relapse in, 23-24

locally advanced, 384 menopause and, 277

Breast cancer (Continued) metastatic, 378-381 mind-body approaches in, 124 mutation testing for, 425, 429 natural history of, 291-292 neoadjuvant chemotherapy in, 389-390 neoadjuvant chemotherapy trials in, 390-391 neoadjuvant therapy in, 20-24 newer strategies in, 17-20 ovarian ablation in, 314-315 polychemotherapy in, 15 prevention modalities for, 253-254 prevention of, 428 prognostic factors in, 53-55 relapse-free survival in, 22, 23 relative risk for, 276 selective estrogen receptor modulator in, 264 sentinel lymph node dissection in, 45-50 stem cell transplantation in, 382-384 subclinical, tamoxifen and, 255 surgery in, 24 systemic adjuvant therapy of, late effects from, 25-26 tamoxifen in, 315-318 therapy selection in, 292 treatment goals of, 292 Breast Cancer Prevention Trial, 253 Breast cancer risk, estimating, 419-421 Breast cancer survivor(s) estrogen use in, 281 menopausal symptom management in, 279-282 menopausal syndromes in, 277-279 Breast-conserving surgery, increasing rate of, 394 Bromodeoxyuridine incorporation of, 57-58 Buserelin, 323 Bystander effect, 338-340

c-erbB-2, 26, 60 CAD technique, 222, 223 Cancer detection of, studies of, 239 early systemic therapy in, 1-2 future of, in emerging world, 210-213 hormonal aspects of, 254 hypercalcemia associated with, 285-286 prognostic factors in, 238-240 surveillance for, 450 tumor in, onion skinning of, 338 world control of, 140 Cancer education, in emerging world, 214 Cancer risk, inequalities in, 207-208 Cancerization, field, 108 Capecitabine, 349, 350, 515 in hepatocellular carcinoma, 508 Carbohydrate antigen, tumor-associated, 80-81 Carbohydrate vaccine, 72, 80-81 Carboplatin high-dose, 19 with taxanes, 348 Carboxyamidotriazole, 571 Carboxyaminoimidazole, 96, 97

Carcinogenesis, multistep, 107-108 Cardiomyopathy, associated with adjuvant chemotherapy, Carmustine, high-dose, 19 Carotenoids, as chemopreventive agents, 109-110 Carribean, cancer incidence rates in, 159 Cathepsin D, 61-62 CB1954 prodrug, 339 CD4 helper T cell, 73 CD40L antibody, 338 CDC-501, 605 CeaVac, 83 Cell death, marker of, 63 Central America, cancer incidence rates in, 159 Cervical cancer human papillomavirus and, 190-191 Latin American incidence of, 188-189 oral contraceptives and, 192-193 reproductive history and, 192 screening for, 193-195 sexual behavior and, 191-192 socioeconomic status and, 192 in sub-Saharan Africa, 202-203 in Uganda, 203 worldwide incidence of, 188-189 worldwide mortality due to, 189-190 CGP-41251, 571 CGS-270223A, 571 Challenge, 142 Chemoembolization in hepatocellular carcinoma, 500, 505 pretransplant intraheaptic transarterial, 447 Chemoprevention, 253-254 of breast cancer, 254-255 carotenoids in, 109-110 definition of, 253 Chemoprotection, 348 trials of, 337 Chemoresistance, in multiple myeloma, 628 Chemotherapy adjuvant, see Adjuvant chemotherapy in advanced breast cancer, 344-345 antiangiogenic agent with, 100 in bladder cancer, 177 combination, in hepatocellular carcinoma, 515-516 dose intensification of, in breast cancer, 364-365 in esophageal cancer, 155 high-dose, see High-dose chemotherapy menopause and, 275 neoadjuvant, see Neoadjuvant chemotherapy non-cross-resistant regimens of, in breast cancer, 17 outcomes of, in metastatic breast cancer, 378-379 ovarian ablation plus, 327-328 ovarian ablation v, 326-327 ovarian failure and, 324 poly-, see Polychemotherapy in postmenopausal women, 360-362 postoperative v primary, 22 in premenopausal women, 314-315

Carcinoembryonic antigen, recombinant vaccine expressing,

81-82

Chemotherapy (Continued)

preoperative, see Neoadjuvant chemotherapy

PS-341 and, 630

response to, prediction of, 21

sequencing of, and radiation therapy, 24-25

single-agent, in hepatocellular carcinoma, 514-515

systemic, in hepatocellular carcinoma, 506-507

tamoxifen and, in early-stage breast cancer, 318

trastuzumah and, 352-353

Chick embryo chorioallantoic membrane assay, 574-575

Child-Pugh classification system, 475

China, esophageal cancer in, 154

Chinese herbal therapy, 127

Chinese medicine, traditional, 124-129

Chloroquine, 540

Cholesterol level, tamoxifen and, 263-264

Chorioallantoic membrane, chick embryo, 547

Chorioallantoic membrane assay, chick embryo, 574-575

Cigarettes, consumption of, in Brazil, 146

Cinnamomum cassia Blume, 128, 129

Cirrhosis, 451-452

alcoholic, hepatocellular carconoma and, 443

CT in, 469

dysplastic nodules in, 462

dysplastic nodules' natural history in, 462-463

as hepatocellular carcinoma risk, 182-183

hepatocellular carcinoma and, 441, 443, 503-504, 522-523

nodular lesions in, MRI of, 466-467

regenerative nodules in, 461-462

Cisplatin, 515

in hepatocellular carcinoma, 504

high-dose, 19

with taxanes, 348

Cisplatin, doxorubicin, fluorouracil, interferon-alpha 2b regimen, in hepatocellular carcinoma, 515-517

Cisplatin, interferon-alpha 2b regimen, in hepatocellular carcinoma, 515

Cisplatin, methotrexate, fluorouracil, interferon-alpha 2b regimen, in hepatocellular carcinoma, 515

Claus model, 420, 421

Clinical trial, prediction-based, 307-308

Clodronate, 285, 286, 287, 369

Clofazimine, in hepatocellular carcinoma, 515

Coenzyme Q 10, 123

Cognitive dysfunction, associated with adjuvant chemotherapy, 370-372

COL-3, 571, 96

Colony-stimulating growth factor, myelosuppression and, 18

Colorectal cancer

adjuvant therapy background in, 30-32

future therapy directions in, 36-38

incidence of, 30, 68

standard of care adjuvant therapy programs in, 35

surgical stage in, and survival, 31

Combination chemotherapy, in hepatocellular carcinoma, 515-516

Combretastatin, 571, 96

Comedonecrosis, ipsilateral breast tumor recurrence and, 414

Complementary medicine, definition of, 121-122

Computed tomography

in cirrhosis, 469

Computed tomography (Continued)

contrast-enhanced, in hepatocellular carcinoma, 461

direct, arteriography, 465

in hepatocellular carcinoma, 463-465

lipiodol, 464

in recurrent hepatocellular cancer, 492

Computed tomography arterioportography, 465

Computer-aided detection and diagnosis, 222, 223

Connexin 43, 338

Copper-67, 70

Core needle biopsy, neoadjuvant chemotherapy and, 395

Core protein, hepatitis C, 523-524

Cornea micropocket assay, 574

Coronary artery disease, relative risk for, 276

Costa Rica, Pap smear testing in, 194

Couch model, 426

Cowden syndrome, breast cancer risk and, 423

CPT-11, 37

Cryoablation, in hepatocellular carcinoma, 489-490

Cryosurgery, 506

in hepatocellular carcinoma, 482

CT, see Computed tomography

CTLA4Ig, 338

Cyclin D1, ipsilateral breast tumor recurrence and, 414

Cyclo-oxygenase, 102

Cyclophosphamide

adjuvant, 25

in breast cancer, 14-15

cyclophosphamide, methotrexate, fluorouracil regimen  $\upsilon_i$ 

334

dose intensification of, in breast cancer, 364-365

doxorubicin, cyclophosphamide regimen v, 334

doxorubicin regimen, 305-306

in early-stage breast cancer, 315, 316

HER-2 overexpression and, 332-333

high-dose, 19

in metastatic breast cancer, 17

in postmenopausal women, 360-362

taxanes plus, 348

trials of, 326, 327

20-year results following, 16

Cyclophosphamide, methotrexate, fluorouracil regimen, locoregional failure and, 248-249

Cyclophosphamide, methotrexate, fluorouracil, prednisone, tamoxifen regimen, 249

Cyproterone acetate, in neoadjuvant therapy trials, 9

Cytochrome p450 gene, 339

Cytokines, thalidomide effects on, 600

Cytoreduction, limit of, mechanisms responsible for, 305

Cytosine deaminase, 339

D-99, 348-349

Daunorubicin, liposomal, in hepatocellular carcinoma, 515

Dendritic cell, 73, 84-85

Developing countries, 141

Dexamethasone, thalidomide plus, 585-586

Dexrazoxane, doxorubicin regimen, with taxanes, 348

Diabetes, relative risk for, 276

Diarrhea, 34

Diet

in breast cancer, 123-124

Diet (Continued) as cancer risk factor, 164-165 Dietary supplement, in breast cancer, 123-124 Diethylstilbestrol, in prostate cancer, 5-7 Diferuloyl methane, 110 as chemopreventive agent, 109 Differential absorption ratio, 226 Differentiation marker, 111 Digital mammography, full-field, 221 Dihydropyrimidine dehydrogenase, 349 Dinitrophenyl vaccine, 75 District Cancer Control Program, in India, 171-172 Djerba Statement, 142 DNA binding, nuclear factor-kB and, 628-629 DNA flow cytometry, 57 DNA ploidy, ipsilateral breast tumor recurrence and, 414 DNA synthesis, measurement of, 599 DNA vaccine, 72 Docetaxel, 345, 396 in advanced breast cancer, 365-366 dosing of, 346 in metastatic breast cancer, 346-347 weekly, phase II trial of, 347 Double target effect, 541 Doxil, 349 with taxanes, 348 Doxocycline, liposomal, 349 Doxorubicin, 348, 514, 515 in chemotherapy regimen, for breast cancer, 16 cyclophosphamide, methotrexate, fluorouracil regimen v, dose intensification of, in breast cancer, 364-365 in early-stage breast cancer, 315, 316 in hepatocellular carcinoma, 504, 506, 515, 516-517 locoregional failure and, 248 in metastatic breast cancer, 17 regimens containing, and HER-2 overexpression, 333-334 taxanes plus, 348 trials of, 326, 327 Doxorubicin, bleomycin regimen, in hepatocellular carcinoma, 515 Doxorubicin, cyclophosphamide regimen, 305-306 Doxorubicin, dexrazoxane regimen, with taxanes, 348

Dysplastic nodule, in cirrhosis, 462-463, 466

E-cadherine expression, ipsilateral breast tumor recurrence and, 414

Edetrexate, 350
with taxanes, 348
Egypt, bladder cancer in, 174
Elective lymph node dissection, 41-42
EM 652, 267
EM 800, 267
EMD121974, 96, 571
Emerging world, 141

Doxorubicin, fluorouracil, methyl-CCNU regimen, in

hepatocellular carcinoma, 515

hepatocellular carcinoma, 515

Ductal carcinoma in situ, 400-402

Droloxifene, 266, 296

Doxorubicin, fluorouracil, mitomycin regimen, in

Emesis, associated with adjuvant chemotherapy, 370-372 Endocrine therapy adjuvant, see Adjuvant endocrine therapy of breast cancer, 292-293 mechanism of action of, 293 selection of, 293-294 sequences of, for metastatic breast cancer, 295 types of, 294-301 Endometrial cancer, tamoxifen and, 263-264 Endostatin, 96, 540, 571 Endothelial cell growth inhibition of, 95 lymphatic, 230 Endothelial cell assay, in antiangiogenic agent screening, Eniluracil, fluorouracil with, 349, 350 Environment, cancer risk factors in, 165-166 Enzyme-linked immunosorbent assay, 60 Eosin-stained slide, 58 Epidoxorubicin, 515 in hepatocellular carcinoma, 514 Epidoxorubcin, etoposide regimen, in hepatocellular carcinoma, 515 Epigallocatechin gallate, 110 as chemopreventive agent, 109 Epirubicin, 19-20, 348 in hepatocellular carcinoma, 504 in metastatic breast cancer, 17 preoperative, in breast cancer, 334 Epithelial membrane antigen, anti-, 238 Escherichia coli nitroreductase, 339 Esophageal cancer in China, 154 diagnosis of, 154-155 epidemiology of, 153-154 etiology of, 154 in Iran, 153 staging of, 154-155 treatment of, 155-156 Estramustine in neoadjuvant therapy trials, 9 in prostate cancer, 7-8 Estrogen in menopause, 293 total blockade of, 315 Estrogen level, breast cancer and, 277 Estrogen receptor, ipsilateral breast tumor recurrence and, 414 Estrogen receptor modulator, selective, 260 Estrogen receptor-negative tumor, 314 tamoxifen in, 314 Estrogen receptor-positive tumor, 315 adjuvant endocrine therapy in, 313-314 Ethanol injection, percutaneous, 481, 487-488 Etidronate, 285, 286 Etoposide in hepatocellular carcinoma, 515

Etoposide, epidoxorubcin regimen, in hepatocellular

carcinoma, 515

Etretinate, 113

Exemestane, 268, 300-301, 318-319 with taxanes, 348

Factor VIII-related antigen, 544 immunoperoxidase staining of, 545 Fadrozole, 299

Familial breast and ovarian cancer syndrome, 423

Faslodex, 267, 297

Ferumoxide, MRI and, in hepatocellular carcinoma, 467

Fetal mouse bone explant angiogenesis assay, 575

Fibroblast growth factor, basic, 508

Fibroblast growth factor-2, 547-548

Fibrosis, ipsilateral breast tumor recurrence and, 414

Field cancerization, 108

Fine needle aspiration, false-positive risk of, 394-395

Floxuridine, in hepatocellular carcinoma, 504

Fluorescence in situ hybridization, 60

Fluorine-18-labeled deoxyglucose, positron emission tomography with, 226

Fluorouracil, 37 adjuvant, 25

in breast cancer, 14-15

in colorectal cancer, 31-32

dose intensification of, 364-365

doxorubicin, cyclophosphamide regimen v, 334

in early-stage breast cancer, 315, 316

eniluracil with, 349, 350

in hepatocellular carcinoma, 504, 506, 515, 516-517

HER-2 overexpression and, 332-333

interferon regimen, in hepatocellular carcinoma, 515

leucovorin plus, 32-35

in metastatic breast cancer, 17, 350

oral, analogs of, 349-350

in postmenopausal women, 360-362

trials of, 326, 327

20-year results following, 16

Fluorouracil, cyclophosphamide, methotrexate, prednisone, tamoxifen regimen, 249

Fluorouracil, cyclophosphamide, methotrexate regimen, locoregional failure and, 248-249

Fluorouracil, doxorubicin, methyl-CCNU regimen, in hepatocellular carcinoma, 515

Fluorouracil, doxorubicin, mitomycin regimen, in hepatocellular carcinoma, 515

Fluorouracil, folinic acid regimen

in hepatocellular carcinoma, 515 with taxanes, 348

Fluorouracil, methotrexate, cisplatin, interferon-alpha 2b regimen, in hepatocellular carcinoma, 515

Fluoxymesterone, in chemotherapy regimen, for breast cancer, 16

Flutamide

in neoadjuvant therapy trials, 9

in prostate cancer, 8

Folinic acid, 506

in hepatocellular carcinoma, 504

Folinic acid, fluorouracil regimen, in hepatocellular

carcinoma, 515 Formestane, 268, 300

Frank model, 426

Ftorafur, 36

Fulvestrant, 319

Fusogenic membrane glycoprotein, 337, 339

Gadolinium, 225

Gail model, 256, 419-420

Ganciclovir, bystander killing and, 338-340

Ganglioside, 81

definition of, 69

Gemcitabine, 351

phase II trials of, in advanced breast cancer, 352

with taxanes, 348

Gene marking, of tumor cells, 336

Gene therapy

barriers to, 337-340

in breast cancer, 341

Gene therapy trial

in cancer, 336

protocols for, 336-337

Gene transfer, limited, 337-338

General Electric Sonograph, 221

Genetic syndrome, increased breast cancer risk and, 423

Genetic testing

breast cancer risk and, 425-427

informed consent for, 427

insurance and, 429-430

privacy issues and, 429-430

Genomic marker, 111

Glycyrrhiza glabra L., 128, 129

Gold, colloidal, 230

Goserelin, 323

clinical trials of, 326

key trials of, 316

in ovarian ablation, 315

in prostate cancer, 7

Granulocyte-macrophage colony-stimulating factor, 19

Green tea, 123

Hapten, 75

Heart and Estrogen-Progestin Replacement Study, 276

Heat treatment, of hepatic malignancy, 490-493

Hematologic function, acupuncture and, 126

Hematopoietic stem cell transplantation

five-year metastatic breast cancer survival following, 379

five-year survival following, 382

in high-risk primary breast cancer, 382-384

in locally advanced breast cancer, 384

in metastatic breast cancer, 379-381

overview of, 377-378

Hematoxylin and eosin-stained slide, 58

Hemochromatosis, 444, 446

Hepatectomy, in hepatocellular carcinoma. 475-477

Hepatic arterial chemoembolization, 488, 489

Hepatic intra-arterial chemotherapy, 504

Hepatic malignancy, heat treatment of, 490-493

Hepatic resection

operative mortality following, 476

radio-labeled lipiodol following, 478

survival rates of, 477

Hepatitis B, 451

prevention of, 445-446

Hepatitis B virus, 181-182, 441-442, 524-528

Hepatitis B virus, 181-182, 441-442, 524-528 (Continued) alcohol plus, 444 hepatitis C virus coinfection with, 443-444 Hepatitis Be antigen, 442 Hepatitis C, 451 prevention of, 446 Hepatitis C core protein, 523-524

Hepatitis C virus, 182, 442-443, 523 alcohol plus, 444

hepatitis B virus coinfection with, 443-444

Hepatitis D virus, 182, 443 Hepatocarcinogenesis, 527-528 Hepatocellular carcinoma ablation in, 499-500 adjuvant therapy in, 478 age and, 180

antiangiogenesis agents in, 508-509 antihormonal therapy for, 517-518

capecitabine in, 508 chemoembolization in, 500, 505 childhood, relative ratio frequencies of, 184 cirrhosis and, 503-504, 522-523

cryoablation in; 489-490 cryosurgery in, 482, 506 curative hepatic resection in, 474

detection of, imaging accuracy in, 470 determining extent of, 474-475

determining functional liver reserve in, 475 epidemiology in, 179-180, 441-445

fibrolamellar, MRI of, 468 genomic instability in, 528-529

global incidence of, 442 guided percutaneous biopsy of, 468-469

hepatectomy in, results of, 475-477 hepatic arterial chemoembolization in, 488, 489

hepatic intra-arterial chemotherapy in, 504 hypervascular, arteriogram of, 467

imaging screening for, 470 incidence of, 180, 441, 497, 521-522

in infancy, 183-184

integrated imaging approach to, 470-471 interferon therapy in, 507-508, 518

introduction to, 439-440 key imaging points in, 470 morphology of, in Africa, 183 MRI in, 467 neoadjuvant therapy in, 477-478

octreotide in, 509 orthotopic liver transplantation in, 479-481 overview of, 460

pathology of, 497-498 patient management in, 500-501

percutaneous ethanol injection in, 487, 505

PIAF regimen in, 516-517 prevention of, 509

primary prevention of, 445-447 radiation therapy in, 505-506

radiofrequency ablation in, 481-482, 491-493

radiologic staging of, 469-470 radiological aspects of, 460-461 radiological imaging in, 498-499 Hepatocellular carcinoma (Continued)

resection in, 499

risk factors for, 180-183, 452

ruptured, 468

secondary prevention of, 447

single-agent chemotherapy for, 514-515 surgical suitability in, 475

surveillance program criteria for, 450 systemic chemotherapy in, 506-507

tamoxifen in, 507 thermotherapy in, 506 TNM staging of, 469

transplantation for, 500

UFT in, 508

without cirrhosis, 467-468

Hepatocyte, 460 HER-2, 60 Herbal agent, 128

Herbal therapy, traditional Chinese, 127

Herpes simplex virus thymidine kinase gene transfer, 336,

Herpes virus, 340 HER-2 gene description of, 332

overexpression of, 332-333

HER-2 gene amplification, tamoxifen and, 314

HER-2 overexpression

cyclophosphamide, methotrexate, fluorouracil regimen and, 332-333

doxorubicin-containing regimens and, 333-334

High-dose chemotherapy, 18-19 in advanced breast cancer, 367-369

five-year survival following, in breast cancer, 379, 382

in high-risk primary breast cancer, 382-384 in locally advanced breast cancer, 384 in metastatic breast cancer, 379-381 overview of, 377-378

HIV infection

childhood, 204-205 ocular malignancy in, 203-204

HIV-associated cancer, age-standardized incidence rates of, 204

HMB-45 antigen, 43

Honduras, Pap smear testing in, 194 Hormonal function, acupuncture and, 126

Hormonal therapy, neoadjuvant, in prostate cancer, 8 Hormone receptor status, as prognostic factor, 57

Hormone replacement therapy, 276

Hot flash score, 280

Human papillomavirus, cervical cancer risk and, 190-191 Human saphenous vein angiogenesis assay, 573, 574

Human umbilical vein endothelial cell, 546-547

Hypercalcemia, cancer-related, 285-286

Hypophysectomy, 293

Ibadan, most common tumors in, 203

Ibandronate, 285 ICI-182, 80, 267, 268, 297 Idoxifene, 266, 296 Ifosfamide

in hepatocellular carcinoma, 515

Ifosfamide (Continued)

with taxanes, 348

IM862, 571, 96

Image Checker, 222

Immunologic function, acupuncture and, 126

Immunomodulatory drug, 603, 607-608 differential effects of, 604-605

Immunotherapy, 337

India

oral cancer in, 169

tobacco in, and oral cancer, 169-171

Insulin-like growth factor 1, 254

Interferon

in hepatitis prevention, 446

in hepatocellular carcinoma, 507-508

Interferon, fluorouracil regimen, in hepatocellular carcinoma,

Interferon therapy, in hepatocellular carcinoma, 518

Interferon-alfa, 96

Interferon-alfa-2a, 98

Interferon-alpha, 571

Interferon-alpha 2b, cisplatin regimen, 515

Interferon-alpha 2b, cisplatin, doxorubicin, fluorouracil regimen, 516-517

Interferon-alpha 2b, cisplatin, methotrexate, fluorouracil regimen, 515

Interferon-alpha 2b, doxorubicin, cisplatin, fluorouracil regimen, 515

Interleukin-12, 571, 96, 97

International Breast Cancer Intervention Trial, 257

International Council for Establishment and Development of Oncology Centers, 141

Intra-arterial chemotherapy, hepatic, in hepatocellular carcinoma, 504

Intraoperative mapping

probe-directed, 47-48

radiotracer for, 43-45

Iodine-125, 70

Iodine-131, 70

Ionic agitation, 491

Ipsilateral breast tumor recurrence

prognostic factors for, 414

relative risk of, 409-410

Iran, esophageal cancer in, 153

Iressa, 571

Irinotecan, 351-352, 37

with taxanes, 348

Isosulfan blue, 48

side effects of, 232

Jamaica, Pap smear testing in, 194

Kaplan-Meier analysis, 240

Kaposi's sarcoma

age-specific incidence of, in Uganda, 200

AIDS-associated, epidemiology of, 200-201

pathology of, 201

in sub-Saharan Africa, 199-200

Ki-67, 57-58

Kidney cancer, Neovastat in, 624

Knudson hypothesis, 421

Lagios criteria, ipsilateral breast tumor recurrence and, 414

Laser-induced thermotherapy, 493

Latin America

cervical cancer in, 188

human papillomavirus in, 191

mouth cancer in, 159

Pap smear testing in, 194

pharyngeal cancer in, 159

Leavell's levels of prevention, 213, 214

Letrozole, 268, 299-300, 318-319

Leucovorin, 37

fluorouracil plus, 32-35

Leukemia

as angiogenesis-dependent disease, 536, 537

associated with adjuvant chemotherapy, 370-372

secondary, in breast cancer, 25-26

Leukopenia, 34

Leukoplakia, 112-116

Leuprolide, 323

Levamisole, in colorectal cancer, 31-32

LeVeen multiple array radiofrequency needle electrode, ten-

tine, 491

Level of evidence, 54, 61

Li-Fraumeni syndrome, breast cancer risk and, 423

Life expectancy, of women, 362

Lifestyle modification, in cancer prevention, 253

Lime, 170

Lipiodol

in computed tomography, 464

radio-labeled, 478

Liposomal anthracycline, 348-349

Liposomal daunorubicin, in hepatocellular carcinoma, 515

Liver disease, chronic, prevention of, 522

Liver function, Child-Pugh classification system of, 475

Liver transplantation, 447

in hepatocellular carcinoma, 479-481

Lobular carcinoma in situ, tamoxifen and, 262

Locoregional failure

following mastectomy, 246-248

rates of, and therapy, 248-249

Loxoxantrone, 348

Lumpectomy

performance of, 393

radiotherapy following, 404

with tamoxifen and radiotherapy, 407, 411

Lung cancer

air pollution and, 148

arsenic and, 147

in Brazil, 143-144

Brazilian incidence of, 143-144

Brazilian mortality due to, 143-144

Brazilian smoking and, 145-147

Neovastat in, 623-624

occupation and, 147-150

risk factors for, 144-145

South American incidence of, 144

South American mortality due to, 144, 145

Luteinizing hormone-releasing hormone

in neoadjuvant therapy trials, 9

in prostate cancer, 8

pre-, 274

premature, 274

Metallothionein, ipsilateral breast tumor recurrence and, 414

Luteinizing hormone-releasing hormone agonist, in ovarian Metastasis, aggressive therapy of, 37-38 ablation, 315 Methotrexate LY 353381, 267 adjuvant, 25 Lymph duct, 229 in breast cancer, 14-15 Lymph node, physiology of, 229-231 doxorubicin, cyclophosphamide regimen v, 334 Lymph node micrometastasis, 58-59 in early-stage breast cancer, 316 Lymph node status, in cancer, v bone marrow staging, 241 HER-2 overexpression and, 332-333 Lymphatic invasion, as prognostic factor, 56-57 in metastatic breast cancer, 17 Lymphatic nodal status, axillary, and neoadjuvant in postmenopausal women, 360-362 chemotherapy, 392-396 preoperative, in breast cancer, 334 Lymphatic vessel, schematic of, 231 20-year results following, 16 Lymphoscintigraphy, preoperative, 43 Methotrexate, cyclophosphamide, fluorouracil, prednisone, tamoxifen regimen, 249 Macronex-160, 540 Methotrexate, cyclophosphamide, fluorouracil regimen, 248-MAGE-1, 80 249 Methotrexate, fluorouracil, cisplatin, interferon-alpha 2b Magnetic resonance imaging of breast, 224-225 regimen, 515 Methoxyestradiol, 571 of fibrolamellar hepatocellular carcinoma, 468 Methoxyisobutyl-isonitrile, 225-226 in hepatocellular carcinoma, 461, 462, 463, 464, 465-467 Methyl-CCNU, doxorubicin, fluorouracil regimen, 515 of nodular lesions, in cirrhosis, 466-467 Mexico, Pap smear testing in, 194 Mapping, lymph node, 230-231 Margin width, ipsilateral breast tumor recurrence and, 414 MF11-30, 83 Marimastat, 96, 98, 571 Microcalcification, ipsilateral breast tumor recurrence and, 414 Marker Micrometastasis, 238 of angiogenesis, 60-61 detection of, 58 of cell cycle regulation, 63 Micronuclei, 111-116 of cell death, 63 Microvessel area, 544 differentiation, 111 genomic, 111 Microvessel count, 60 of invasion, 61 Microvessel density, 60-61 of metastasis, 61 as antiangiogenic therapy marker, 538-539 poor prognosis and, in multiple myeloma, 565-566 predictive, 306-307 of proliferation, 57-58, 111 Microwave coagulation therapy, 493 Mind-body approach, in breast cancer, 124 Markov model, 429 Mast cell, angiogenesis and, 548-549 Minimal residual disease, prognostic impact of, 238-240 Mastectomy Mitomycin in hepatocellular carcinoma, 504 locoregional failure following, 246-248 modified radical, and chemotherapy, 247 preoperative, in breast cancer, 334 prophylactic, 253, 428 Mitomycin, doxorubicin, fluorouracil regimen, 515 Mitotic index, 57 Mate, 145 Mitoxantrone, 515 Matrigel rat aortic ring angiogenesis assay, 571, 572-573 Maturity index, in Brazilian smoking, 146-147 in hepatocellular carcinoma, 504, 514 Mayo Clinic, criteria of, in myeloma, 561 preoperative, in breast cancer, 334 with taxanes, 348 Measles virus protein F, 337 Measles virus protein H, 337 MMP-2, 548 Megestrol acetate, 279-280, 301 MMP-9, 548 Modeling study, 456-457 Melacine, 76 Monoclonal antibody 3F8, 69 Melanoma, incidence of, 68 Melanoma-associated marker, 43 Monoclonal antibody 96.5, 69 Monoclonal antibody D612, 69 Menopausal symptom, management of, in breast cancer survivors, 279-281 Monoclonal antibody L6, 69 Menopause Monoclonal antibody L72, 69 Monoclonal antibody(ies), unlabeled, passive therapy with, adjuvant chemotherapy and, 370-372 breast cancer and, 277 68-70 chemotherapy and, 275 Monoclonal gammopathies of undetermined significance definition of, 274-277 bone marrow angiogenesis in, 543-544 Mayo Clinic criteria for, 561 peri-, 274 post-, 274 Mouth cancer

familial clusters in, 166 genetic susceptibility to, 166

incidence patterns in, 158-160

Mouth cancer (Continued)

mortality patterns in, 160-162 risk factors for, 163 survival patterns in, 162 MRI, see Magnetic resonance imaging MTA, 350 MUC1, 79 Mucin, 79 Mucositis, associated with adjuvant chemotherapy, 370-372 Muir-Torre syndrome, breast cancer risk and, 423 Multifocality, ipsilateral breast tumor recurrence and, 414 Multiple myeloma, 287-288 angiogenesis in, 561-562 bone marrow angiogenesis in, 543-544 characterization of, 551, 560, 565 Mayo Clinic criteria for, 561 microvessel density in, as prognostic marker, 536-537 Neovastat in, 624 new treatment approaches to, 535 nuclear factor-kB in, 627 polymorphisms in, 628 refractory, thalidomide in, 584-585, 588-591 thalidomide therapy in, 537-538 therapy of, and bone marrow angiogenesis, 562-563 total therapy in, 566 vascular endothelial growth factor in, 611 Multiple Outcome of Raloxifene Evaluation, 258 Mustard prodrug, 339 Mutation carrier, surveillance for, 427-428 Myeloma, 287 thalidomide in, 563 Myelosuppression, colony-stimulating growth factor and, 18

N-acetylcysteine, 102 as chemopreventive agent, 109 National Cancer Control Program, 141 in India, 171 National Cancer Institute, 140 Nausea, acupuncture and, 125 Neoadjuvant chemotherapy, 393 adjuvant v, 394 axillary nodal status and, 392-396 current role of, 396-397 European randomized trials of, 391-392 future directions with, 397 nonrandomized trials of, in breast cancer, 390-391 overview of, 389-390 preoperative, 334 prognosis and, 64 surgical considerations following, 395-396 US randomized trials of, 392-396 Neoadjuvant therapy in breast cancer, 20-24 in hepatocellular carcinoma, 477-478 Neovastat, 96, 571, 621 antiangiogenic activity of, 621 antitumoral acitivity of, 622-623 clinical studies of, 623

in multiple myeloma, 624

toxicology of, 623

phase III clinical trials of, 623-624

Neuropathy, associated with adjuvant chemotherapy, 370-Neutropenia, 34 Newcastle disease virus, 340-341 Nodule, in cirrhosis, 461-462 Nolatrexed, in hepatocellular carcinoma, 515 Non-Hodgkin's lymphoma features of, 202 incidence of, in Uganda, 202 in sub-Saharan Africa, 201-202 Nottingham classification, ipsilateral breast tumor recurrence and, 414 Nuclear factor-kB, 614-615 activation pathway of, 615 in multiple myeloma, 627 Nucleolar grade, ipsilateral breast tumor recurrence and, 414 Nutrition, as cancer risk factor, 164-165 Occupation as cancer risk factor, 165-166 lung cancer and, 147-150 Octreotide, in hepatocellular carcinoma, 509 Ocular malignancy, in HIV infection, 203-204 Oil, iodized, in computed tomography, 464 Omega-3 fatty acids, 123 Oncogene down regulation, trials of, in cancer, 337 Oncolytic virus, 340-341 Onion skinning, of cancer tumor, 338 Oophorectomy, 293 prophylactic, 428 surgical, in early-stage breast cancer, 322, 323 Oral cancer age-adjusted incidence rates of, 172 control programs for, 171-172 in India, 169 pathogenesis of, 171 screening for, 172-173 treatment of, 173 Oral contraceptives, cervical cancer and, 192-193 Oral health, cancer risk factors and, 166 Oral hygiene, cancer risk factors and, 166 Orthotopic liver transplantation, 479-481 Osteolysis, 286 Osteoporosis raloxifene and, 264 relative risk for, 276 Ovarian ablation chemotherapy plus, 327-328 chemotherapy v, 326-327 clinical trials assessing, 326 in early-stage breast cancer, 314-315 history of, 322 long-term morbidity of, 329 methods of, 322-324 overview analysis of, 324-326

radiation-induced, 323

Oxaliplatin, 352

tamoxifen plus, 328-329

in total estrogen blockade, 315

Ovarian suppression, medical, 323

Ovarian cancer, chemoprevention of, 429

p53, 26, 63 p97, 71 Paclitaxel, 26 in adjuvant regimens, 18 in advanced breast cancer, 365-366 dosing of, 345 in hepatocellular carcinoma, 515 scheduling of, in metastatic breast cancer, 346 weekly, phase II trial of, 347 Pain, acupuncture and, 125-126 Pamidronate, 285, 286-287 Panax ginseng C.A. Meyer, 129 Pap smear testing for cervical cancer, 193-195 in Latin America, 194 Parity, cervical cancer and, 192 Parmigiani model, 426 Patent Blue V, 232 Pentoxifylline, 540 Peptide vaccine, 72, 79-80 Percutaneous biopsy, guided, 468-469 Percutaneous ethanol injection, 481 in hepatocellular carcinoma, 487, 505 Peripheral blood mononuclear cell, 80 Peripheral blood progenitor cell transplantation, 377-378 Peutz-Jeghers syndrome, breast cancer risk and, 423 Pharyngeal cancer in Carribean, 159 in Latin America, 159 mortality patterns in, 161-162 risk factors for, 163 survival patterns in, 162 Phase II trial, of herbal regimen, 131 Phytohemaglutinin, 126 PIAF regimen, in hepatocellular carcinoma, 516-517 Plasma cell, angiogenic capacity of, 546-547 Plasma cell labeling index, 562 Ploidy, 57 Point counting, 544 Polychemotherapy in breast cancer, 15 overview of, 359-360 risk reduction and, 360 Polymerase chain reaction, reverse-transcriptase, 43 Polyvalent melanoma cell vaccine, 75 Polyvalent shed antigen vaccine, 72, 77 Positron emission tomography, 226 Postmastectomy radiotherapy, clinical trial results of, 245-246 Postmenopausal Estrogen Progestin Intervenion Trial, 278, 279

Postmenopausal Estrogen Progestin Intervenion Trial, 278, 279

Postmenopausal women breast cancer therapy in, 360-362 ER+, chemotherapy clinical trials in, 361

Prediction-based clinical trial, 307-308 discovery phase of, 308 feasibility of, 308-309 validation phase of, 308

Predictive marker, 306-307

Prednisone, in chemotherapy regimen, for breast cancer, 16

Prednisone, cyclophosphamide, methotrexate, fluorouracil, tamoxifen regimen, 249

Premenopausal women 5-year tamoxifen effect in, 317 ovarian ablation in, 314-315 Prodrug, 349-350 with diffusible toxic metabolites, 339 Progesterone receptor, ipsilateral breast tumor recurrence and, 414 Progesterone receptor-negative tumor, 314 Progesterone receptor-positive tumor, 313-314 Progestin, 293, 301 Prognostic factor(s) angiogenesis and, 94-95 in breast cancer, 53-55 classification of, 54-55 evaluation of, 54 proven breast cancer, 55 strength of, 55 studies of, 239 Prognostic marker bone marrow angiogenesis as, 549-550 microvessel density as, 536-537 Proliferating cell nuclear antigen, 57-58 Proliferation marker, 111 Prostate cancer adjuvant hormonal therapy studies in, 5-7 adjuvant therapy in, 3-4 adjuvant therapy theoretical basis in, 4 neoadjuvant therapy in, 8-10 preclinical adjuvant therapy basis in, 4-5 prognostic factors in, 4 Prostatectomy in neoadjuvant therapy trials, 9 neoadjuvant therapy trials prior to, 9 radical, in prostate cancer, 6-7 Proteasome function of, 613-614 inhibition of, 614-615 205, 614 26S, 613, 614 Proteasome inhibitor, 608-610 PS-341, 613, 629-630 chemotherapy and, 630 clinical studies of, 616-617 effects of, 609 preclinical studies of, 615-616 PTK787, 571 Puerto Rico, Pap smear testing in, 194

Quality-adjusted life years, 456 Quid, 170 Quinacrine, 540

Radiation, ovarian ablation induced by, 323
Radiation therapy
adjuvant therapy trials following, 7
in hepatocellular carcinoma, 505-506
neoadjuvant therapy trials prior to, 10
in prostate cancer, 7
sequencing of, and chemotherapy, 24-25
Radioactive tracer
for sentinel node identification, 231-232

Radioactive tracer (Continued) side effects of, 232

Radiofrequency ablation

in hepatocellular cancer, 481-482, 491-493 of hepatic malignancy, 490-491

Radioimmunodiagnostics, 70-72

Radioimmunodiagnostics, 70-72

Radioisotope, 225-226

intraoperative mapping using, 43-45 for radioimmunotherapy, 70

Radiotherapy

in esophageal cancer, 155

following lumpectomy, 404

with lumpectomy and tamoxifen, 407, 411

postmastectomy, clinical trial results of, 245-246

Raloxifene, 296-297, 317-318

as breast cancer preventive, 264-265

clinical trial of, 257

effect of, on other tissues, 265

osteoporosis and, 264

structure of, 267

Raloxifene Use for the Heart Trial, 265

Rat aortic ring angiogenesis assay, 571, 572-573

Recall, in carcinoma surveillance, 453-454

Recombinant viral vaccine, 72

Reovirus, 340

Retinoic acid receptor, 109

Retinoid-X-receptors, 109

Retinoids, as chemopreventive agents, 108-109, 110

Reverse-transcriptase polymerase chain reaction, 43

Risedronate, 285

Risk Assessment Tool, 256

Risk disk, 256

Rolipram, 540

Royal Marsden Trial, 257, 262

S-100 protein antigen, 43

S-phase, ipsilateral breast tumor recurrence and, 414

S-phase fraction, 57-58

Saphenous vein angiogenesis assay, human, 573, 574

Sawdust, 171

Schistosomiasis, in Egypt, 174

Screening

criteria for, in hepatocellular carcinoma, 450

for cervical cancer, 193-195

Selective cytokine inhibitory drug, 603

Selective estrogen receptor downregulator, 267-268, 319

Selective estrogen receptor modulator, 260, 294-297, 314,318 new, 265

Selenium, as chemopreventive agent, 109

Sentinel lymph node biopsy, history of, 229

Sentinel lymph node dissection

accuracy of, 49

in breast cancer, 45-50

in melanoma, 46

next phase in, 49-50

postoperative adjuvant chemotherapy and, 48-49

success rate of, 49

Sentinel lymphadenectomy, 41

dye-directed, 43

Sentinel node, histopathologic examination of, 48

Sentinel node surgery

active clinical trials of, 234

clinical trials of, 233-234

methods of, 231-232.

Sentinel node technology, 42-43

Sexual behavior, cervical cancer and, 191-192

Silica, Brazilian worker exposure to, 149

Single-chain antibody, trials of, in cancer, 337 Skin reaction, delayed-type hypersensitivity, 74

Smoking

in Brazil, 145-147

cervical cancer and, 193

Smoking habit, 146-147

Smoldering myeloma, Mayo Clinic criteria for, 561

Solid tumor, secondary, in breast cancer, 25-26

Sonograph, General Electric, 221

Sonography

in hepatocellular carcinoma, 463, 464

in hepatocellular carcinoma surveillance, 453

South America

cancer incidence rates in, 159

hepatocellular carcinoma incidence in, 180

lung cancer incidence in, 144

Southern blot assay, 60

Soy, 123, 124

Spirulina fusiformis, 110

as chemopreventive agent, 109

Squalamine, 96, 571

Squamous cell carcinoma, HIV-related, pathologic features

of, 204

Stem cell transplantation, hematopoietic, see Hematopoietic

stem cell transplantation

Stomatitis, 34

Study of Tamoxifen and Raloxifene, 257, 297

Study of Women Across the Nation, 276

SU5416, 96, 98, 571

SU6668, 96, 571

Sub-Saharan Africa

AIDS-associated cancers in, 198-199

anal cancer in, 203

cervical cancer in, 202-203

data problems in, 199

non-Hodgkin's lymphoma in, 201-202

Subset effect, 305-306

Sulfur colloid, radio-labeled, 48

Surgery

breast-conserving, increasing rate of, 394

in esophageal cancer, 155

for ovarian ablation, in early-stage breast cancer, 322, 323

Surveillance

efficacy of, 456

enhanced follow-up v, 450-451

in hepatocellular carcinoma, 450

obstacles to, 457

rationale for, 457

reduced mortality and, 455

Survival, and neoadjuvant chemotherapy, 393

T-cell, activation of, 73

T-lymphocyte, cytotoxic, 73

TAG-72, 71

Tambaku, 170 Tamoxifen, 278, 293, 295-296, 396 as breast cancer therapy, 260-261 breast cancer and, 254 in breast cancer prevention, 261-263 chemotherapy and, in early-stage breast cancer, 318 chemotherapy plus, 18 clinical trials of, 326 dose intensification of, 364-365 in early-stage breast cancer, 315-318 effects of, 263-264 in ER+ PR+ tumors, 313-314 in ER-PR+ tumors, 313-314 5-year effect of, 317 in hepatocellular carcinoma, 507, 517-518 HER-2 gene amplification and, 314 international randomized trials of, 14 key trials of, 316 locoregional failure and, 249 with lumpectomy and radiotherapy, 407, 411 luteinizing hormone-releasing hormone agonist plus, in ovarian ablation, 315 neoadjuvant, 392 nonprotocol, guidelines for, 372 ovarian ablation plus, 328-329 in postmenopausal women, 360-362 prevention studies with, 256-257 raloxifene and, 257 risk reduction and, 360 subclinical breast cancer and, 255 therapy with, 255-256 in total estrogen blockade, 315 Tamoxifen, cyclophosphamide, methotrexate, fluorouracil, prednisone regimen, 249 Taxane, 345 in combination regimens, 347-348 side effects of, 347 weekly, phase II trial of, 347 Tea, green, 123 Technetium-99, side effects of, 232 Technetium sulfur colloid, 231 Tegafur, 349, 350, 508 Teleradiology, 221-222 Teleradiology system, schematic of, 223 Thalidomide, 96, 98, 509, 540, 571 actions of, in multiple myeloma, 608 as angiogenesis inhibitor, 537-538 in combination therapy, 579-581 derivatives of, 607-608 dexamethasone plus, 585-586 differential effects of, 604-605 disease applications for, 603 effects of, on cytokines, 600 efficacy of, and microvessel density, 538-539 in hepatocellular carcinoma, 515 in vitro effects of, 602-604 mechanism of action of, 583, 597-600 in myeloma, 563 neuropathy and, 594-595 phase II trial of, 578 potential strategies for, in multiple myeloma, 586

Thalidomide, 96, 98, 509, 540, 571 (Continued) in refractory multiple myeloma, 584-585, 588-591 remission and, 594 as single agent therapy, 577-579 stem cell collection and, 593-594 structure of, 598 toxicity of, 591 Thallium 201, 225-226 Thermotherapy, in hepatocellular carcinoma, 506 Thiotepa in chemotherapy regimen, for breast cancer, 16 high-dose, 19 Three-aminothalidomide, 599 Thromboembolic disease, associated with adjuvant chemotherapy, 370-372 Thymidine labeling index, 57 Tiludronate, 285 TLC D-99, 348-349 TNM stage, as prognostic factor, 55 TNP-470, 95, 98, 509, 571 as cancer risk factor, 162-164 chewing, 170 dried, 170 as oral cancer cause, 169-171 Tomudex, 350 Topotecan, 351-352 with taxanes, 348 Toremifene, 265-266, 296, 318 Total estrogen blockade, 315 Total therapy, 581 in multiple myeloma, 566 Transarterial chemoembolization, in hepatocellular carcinoma, 477-478 Transgene, antitumor efficacy of, 338 Transplantation for hepatocellular carcinoma, 500 peripheral blood progenitor cell, 377-378 Trastuzumab chemotherapy and, 352-353 potential value of, 366-367 with taxanes, 348 TriGem, 84 Triptorelin, 323 Tumor, size of ipsilateral breast tumor recurrence and, 414 and locoregional failure, 248 as prognostic factor, 56 Tumor blush, 467 Tumor cell allogeneic, 75-77 autologous, 74-75 genetically modified, 77-78 Tumor grade, as prognostic factor, 56 Tumor growth factor alpha, 254 Tumor growth factor beta, 254 Tumor Marker Utility Grading System, 54 Tumor necrosis factor-alpha, 101, 539-540, 598 role of, in multiple myeloma, 610 as therapeutic target, 610 Tumor type, as prognostic factor, 56

- Tumor-associated antigen, 76
  Tumor-infiltrating lymphocyte, 78
  Tumor-node-metastasis stage, as prognostic factor, 55
  Tumor-suppressor gene, trials of, in cancer, 337
  Tyrosinase, 43
  Tyrosinemia, 444, 446-447
- UFT, in hepatocellular carcinoma, 508 Uganda cervical cancer in, 203 HIV-associated cancer in, 204 Kaposi's sarcoma incidence in, 200 non-Hodgkin's lymphoma incidence in, 202 Ultrasound, of breast, 223-224 Union Internationale Contre le Cancer, 141 United States, HIV-associated cancer in, 204 Upper aerodigestive tract chemopreventive agents for, 108 second primary tumors of, 106-107 secondary chemoprevention of, 107-108, 111-116 Uracil, 36, 508 Urokinase plasminogen activator system, 62-63 Uruguay, occupation in, and lung cancer, 148
- Vaccine(s), 72-73
  characteristics of, 72
  recombinant, expressing carcinoembryonic antigen, 81-82
  Vaccinia melanoma cell lysate, 77
  Vaccinia melanoma oncolysate, 76-77
  Vaginal dryness, 280
  Van Nuys Prognostic Index, 414
  Vascular endothelial growth factor, 61, 93, 508
  angiogenesis and, 536
  as survival factor, 553
  as therapeutic target, 610-611
  immunohistochemical detection of, 556
  in hematopoietic tumor cell lines, 554
  in multiple myeloma, 554-555
  paracrine effects of, 553-554
- Vascular endothelial growth factor, 61, 93, 508 (Continued) receptors of, 552 role of, in multiple myeloma, 554, 611 in tumor angiogenesis, 552 Vascular endothelial growth factor receptor, 55 Vascular invasion, as prognostic factor, 56-57 Vascular targeting, 97 as cancer neoadjuvant therapy, 101 Vascularity, as prognostic marker, 536-537 Vector transduction, specificity of, 338 Vector-directed cell lysis, trials of, in cancer, 337 Venlafaxine, 280 Vinblastine in chemotherapy regimen, for breast cancer, 16 in hepatocellular carcinoma, 515 Vincristine, in chemotherapy regimen, for breast cancer, 16 Vinorelbine, 350-351 in metastatic breast cancer, 351 with taxanes, 348 Viral oncolysate, 72 Virus, cancer risk and, 166 Vitamin A, 112, 114-115, 123 as chemopreventive agent, 109, 110 Vitamin C, 123 as chemopreventive agent, 109, 110 Vitamin E, as chemopreventive agent, 109, 110 Vitaxin, 97, 98, 571 VNP20009, 341 Vomiting, acupuncture and, 125 von Hippel-Lindau gene, 102 Vorozole, 300
- Women, life expectancy of, 362 World Health Organization, 213-215
- YM175, 288 Yttrium-90, 70
- Zimbabwe, HIV-associated cancer in, incidence rates for, 204 Zoledronate, 288

